



WildGrain

Granular synthesis reimaged. Scatter sounds into drifting fragments.

USER GUIDE

Wildflower Sound · Plugin 04 · VST3 & AAX, plus AU on macOS

What WildGrain does

WildGrain listens to whatever you feed it (a texture, a vocal, a drone, a metal hit, a field recording) and continuously cuts it into tiny snippets (**grains**), then replays them as a living cloud: transposed up or down, played forwards or backwards, scattered across the stereo field, smeared back through time, and optionally fed back into itself so the cloud keeps blooming. You still hear the grains *as* grains: the characterful, granular texture is the sound. Turn **Bloom** to take it from "the source, lightly grained" to "a lush, shimmering cloud"; turn **Pitch** to shift the whole cloud; hit **Freeze** to hold a moment forever and turn any half-second of sound into a pad.

No sampler, no modulation matrix, no patching. Insert it, turn two knobs, get a texture. With Pitch at 0 the cloud is the source's own material rearranged: nothing tonal is imposed under your sound. It's a granular effect for designers first, not a synth.

Good for: pads and drones from any source, risers and transitions, eerie reverse textures, shimmer and dread pitch-clouds, freezing a moment into an evolving bed, and thickening thin material into something alive. Use it as an insert on a track or bus.

What's under the hood

- **A real-time grain cloud:** a 4-second capture buffer feeds a grain scheduler; each grain latches its own pitch, position, direction, window and pan at birth, then plays out clean under its envelope.
- **Bloom:** our signature one-knob macro, here mapped to *cloud lushness*: it thickens the overlap, deepens the shimmer and widens the field all at once.
- **Freeze:** pauses the capture buffer so the cloud loops the held audio: an instant pad from any moment.
- **Feedback into the buffer:** re-injects the cloud into the capture buffer, so Feedback with Pitch off zero builds self-transposing pitch ladders that climb or fall.
- **The Grain Garden:** a live before/after spectrum with a buffer ribbon and a petal for every real grain in the air.

How to read this guide

We start with a 60-second quick start, then walk every control top to bottom in plain language: what it does, and how to use it. Specs and support are at the back.

Quick start

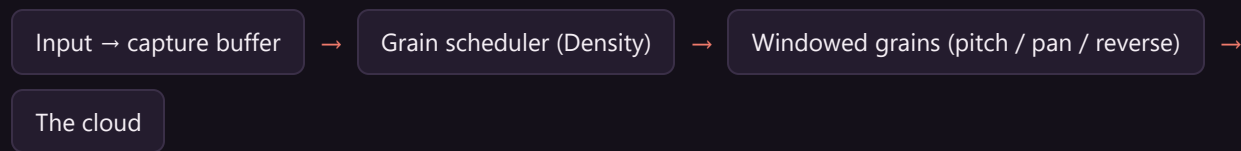
Sixty seconds to a cloud:

1. **Insert WildGrain** on a texture, vocal, drone or riser. It already sounds interesting at its default settings (Bloom 40, everything tasteful).
2. **Turn up Bloom**: the sound thickens into a shimmering cloud. That's the plugin.
3. **Set the Pitch**: up an octave (+12) for an airy sparkle version of your sound, down an octave (−12) for a heavy dread version. The texture stays intact; it's not a synth tone.
4. **Reach for Reverse**: push it toward the middle and the cloud turns eerie and pre-echo-ish.
5. **Add a little Feedback** with Pitch up: the cloud climbs into a self-transposing shimmer ladder.
6. **Hit FREEZE** on the best moment: an instant, evolving pad from half a second of anything. Print it, done.

The fastest path: start from **Init**, then move **Bloom**, **Pitch** and **Length**. Those three shape most of a cloud's character.

How a grain cloud works

Everything WildGrain does comes from one idea: the input writes continuously into a short buffer, and a scheduler keeps spawning tiny windowed grains that read back from it. Each grain is its own little voice with its own pitch, position and direction: stack enough of them and they blur into a cloud.



You don't place grains one by one: Bloom, Density, Length and the Cloud controls shape how many there are and how each one behaves.

The interface at a glance

- **Top:** the Wildflower mark, the preset menu, and a row of small controls: **Static Image**, **Large Text** (on by default: bigger lettering, same window size), **Size** (the window size, 100% to 200%), License, Manual and the **Tooltips** toggle. The version number turns red when a newer version is out; hover it for the details.
- **Display:** the live **Grain Garden**: before/after spectrum, a buffer ribbon, and a petal for every grain.
- **Hero row:** **Bloom**, the grain trio (**Pitch** with a small **Variance** sub-knob, **Length**, **Density**), the **Freeze** latch with **Low Cut** and **High Cut** beneath it, and the **I/O** (Input, Output, Mix).
- **Fun Zone:** the always-open lower panel: **Cloud** and **Goodies**.

The cloud

The top row is the heart of the plugin: how lush the cloud is, and the pitch, length and count of the grains that make it.

Bloom (Amount)

0-100 · the cloud-lushness macro (our signature Bloom)

The one knob that turns a source into a cloud. Low settings give a sparse, subtle graining, nearly transparent. As you raise it, the grains overlap and thicken, the shimmer deepens and the stereo field opens: the sound blooms into a full, lush wash. It's the first thing to reach for, and the backplate art blooms brighter as you turn it up. Bloom adds flavor and mass. It never re-routes or hides another knob's job.

Pitch

-24 ... 0 ... +24 st · transposes the grains · centre-fill knob

Shifts the pitch of the whole cloud, up to two octaves either way, latched per grain. It transposes the source's own material (up an octave for air and sparkle, down an octave for weight and dread) with the texture intact, not a synth pitch imposed underneath. It's continuous (not scale-locked), so ride it freely; set whole numbers when you want it to land on musical intervals. The knob fills from its centre; double-click resets to 0.

Variance

0 (None) ... ± 12 st · the small sub-knob under Pitch · random per-grain pitch

Scatters the pitch of individual grains randomly around the Pitch setting. Turning it up does two things at once: more grains get detuned, *and* they detune further: from a gentle wobble to a fully dispersed pitch-cloud. At 0 (reads *None*) every grain sits on Pitch exactly. It's distinct from Smear: Smear is a subtle always-on chorus shimmer; Variance is an explicit random-transpose spread. The two stack.

Grain size, count and levels

Length and Density shape the grains themselves. Input, Output and Mix set the levels around them.

Length

20 ms to 1 s · the length of each grain

How long each individual grain is. Short grains (bottom of the range) sound fizzy, robotic and pointillistic; long grains (up to a full second) smear together into something legato and pad-like.

Pair a long Length with high Smoothing for the washiest clouds.

Density

2-60 grains/s · how many grains spawn

How often new grains are born. Low density is sparse and rhythmic: you hear each grain as a separate event; high density is a dense, continuous wash. Bloom multiplies this on top, so raising Bloom already adds overlap. Density is your direct control over the underlying rate.

Input · Output

-60 ... 0 ... +12 dB · with LED meters

Trim the level going in and coming out. **Input** sets how hard the sound hits the engine (and it feeds the capture buffer, so it also sets how much the cloud has to work with). **Output** is the final level.

The thin meters beside each knob show signal; the top turns red when you're clipping.

Mix

0-100% · dry/wet blend · default 100%

Blends the grain cloud against the untouched input. 100% is fully wet: the default, and the usual choice for a designed texture. Lower it to keep the original present with a cloud drifting underneath. WildGrain runs as an **insert**; use Mix for your balance rather than a send.

Low Cut · High Cut

20 Hz to 4 kHz · 120 Hz to 20 kHz · both default to Off

Two filters on the cloud, under the Freeze latch. **Low Cut** takes the bottom off it; **High Cut** takes the top off. Use them to keep a cloud out of the way of something else, or push both inward to squeeze it into a narrow band. Each reads *Off* at its own end of the travel and is genuinely out of circuit there, so leaving them alone changes nothing at all.

They sit **after the grains and outside the feedback loop**, so they shape what you hear without changing how long a feedback tail rings. For a filter that works *inside* the loop, so the cloud darkens more with every pass, use Tone. The dry side of Mix is never filtered.

Freeze

Freeze is the plugin's magic trick: the fastest way to turn any moment into a pad.

Freeze

latching button · the snowflake, near the hero knobs

Latch it and the capture buffer stops writing: the cloud keeps granulating the *held* audio, looping it forever. Catch a rich moment (a vowel, a swell, a chord) and Freeze turns it into an evolving bed you can shape with every other control: change Pitch, open Reach, add Reverse and the frozen slice keeps giving. The button glows icy blue-white while latched. Click again to release and resume live capture.

Why Feedback, Soft Atk and Threshold grey out while frozen: Freeze pauses *all* writes to the capture buffer (the feedback loop included) so the held slice stays pristine. With nothing being written, Feedback has nothing to do, so it dims until you unfreeze. Soft Atk and Threshold rest alongside it, because the softener works on the audio going into the buffer and while frozen none is going in. This keeps the mental model simple: frozen means frozen.

A few ways to use it

- **Instant pad:** Freeze a sustained note, raise Smoothing and Length, and you have an evolving drone to print.
- **Frozen shimmer:** Freeze, then Pitch +12 and a little Smear for a glassy, airy hold.
- **Ghost hold:** Freeze a transient-rich moment and push Reverse: the held audio turns spectral.

Cloud

The **CLOUD** group shapes how the grains are spread through time and space: from orderly to chaotic, near to far, forward to backward, narrow to wide, chopped to washy.

Diffusion

0-100% · random position and timing · default 25%

Adds randomness to where and when each grain reads: a random offset on its position plus jitter on its spawn timing. Low keeps the cloud tight and orderly; high scatters it into a diffuse, chaotic haze. It's the "order into chaos" knob: a little loosens the grid, a lot dissolves it.

Reach

10 ms to 2 s · how far back grains sample from · default 120 ms

How far back in the capture buffer the grains reach for their audio: the cloud's echo/smeared depth. Short Reach grains sample close to the live moment (tight, immediate); long Reach pulls audio from up to two seconds ago, so the cloud smears back through time and trails behind the source. It's a creative time-smear, not a latency: the plugin reports no latency to your host, and the dry signal is never delayed.

Reverse

0-100% · chance each grain plays backwards · default 0%

The probability that any given grain plays backwards. At 0 every grain is forward; at 100 every grain is reversed; at 50 it's an even, eerie mix of both. One knob replaces a forward/reverse/random switch: sweep it up to make the cloud pre-echo and turn spectral.

Scatter Width

0-100% · stereo spread of the grains · default 50%

How widely grains are panned across the stereo field. Low keeps the cloud narrow and centred; high throws grains hard left and right for a wide, immersive spread. It uses level panning (mono-safe), and Bloom widens the ceiling it works within.

Smoothing

0-100% · the grain window shape · default 50%

Morphs the shape of each grain's envelope. Low gives chopped, gated, short-edged grains: choppy and rhythmic, the musique-concrète splice feel; the middle is a classic smooth Hann window; high stretches into long, heavily overlapping washes: smeared and pad-like. It's the texture control: chopped through smooth to washy.

Tip: for a stutter/chop character, keep **Smoothing** and **Density** low with **Diffusion** high. For a smooth pad, do the opposite: long **Length**, high **Smoothing**, high **Density**.

Goodies

The **GOODIES** group sweetens the cloud: thickening detune, a tone tilt, a transient softener, and the feedback loop that builds pitch ladders.

Smear

0-100% · per-grain detune + slow chorus · default 15%

A gentle per-grain detune spread plus a slow chorus movement across the cloud. Low values add a thickening shimmer; high values push into a seasick, watery smear. Because it detunes grains against each other inside the cloud (not against the dry source) it's chorus, not comb-filtering. Bloom deepens its spread only when Smear is up, so a deliberately-clean cloud stays clean.

Tone

0-100 · centre 50 · dark → bright tilt

A single bipolar tilt on the cloud, dark to bright, around the centre. Below 50 it rolls the highs off for a darker, softer cloud; above 50 it lifts them for air and sparkle. It also sets the damping ceiling of the feedback loop, so it keeps clouds from fizzing as grains and feedback accumulate high end, without an EQ section.

Soft Atk + Threshold

0 to -208 dB · transient softener · default 0 (off), Threshold -40 dB

Takes the hits out of what feeds the cloud without dulling the body: it pulls down anything standing sharply above the material around it, so a percussive source becomes a cloud with its character and tail but not its impact. Steady sound is untouched, and the readout shows the deepest reduction Soft Atk can apply, down to -208 dB at the top, which takes a hit's attack away completely.

Threshold, the small knob beneath it, decides which sound is softened: only peaks louder than it are pulled down, and the ring around it shows the level it is listening to, glowing while that level is over it. All the way down it reads All (every peak is softened), and at the top (0 dB) nothing is. Soft Atk at 0 switches it off, and both rest while Freeze is latched, since nothing is being written into the buffer for them to work on.

Feedback

0-95% · re-injects the cloud into the buffer · default 0%

Feeds the wet cloud back into the capture buffer, so the grains re-read their own output *through* the pitch shift. With Pitch off zero this builds the classic self-transposing ladder: +12 climbs into sparkle, -12 avalanches into rumble, and 0 with Reverse high becomes an endlessly reshuffling smear. A damping filter, soft-clip and a slow watchdog keep it bounded even at the maximum, so it can't run away.

Tip: a shimmer ladder is **Pitch** +12 with **Feedback** around 30 and a touch of **Smear**. Drop Pitch to -12 for a descending avalanche.

The Grain Garden

The display up top isn't just decoration: it shows you the cloud, and every dot in it is a real grain. Three layers read together:

- **The before/after spectrum:** a light-grey *input* spectrum and a coral *output* spectrum over a 20 Hz to 20 kHz log axis. This honestly shows the transposition (the output curve slides down or up as you move Pitch), the Tone tilt, and Feedback building up.
- **The buffer ribbon:** a slim strip beneath the spectrum showing the last couple of seconds of the capture buffer. The thin **red line** at its right edge is the write head, marking where new audio is going in; it turns blue and the ribbon visibly halts while Freeze holds the buffer.
- **Grain petals:** every grain spawn launches a petal from its true frequency position, drifting up or down by its pitch and sitting left or right by its pan, scaled by its size, hollow when reversed, fading on its window. Density and Bloom read directly as "how many petals are in the air."

Tip: the petals only fly while the cloud is producing sound. If the display looks still, feed it some audio (or hit Freeze on a moment) and it comes alive. Higher-pitched grains launch further right; lower ones further left, aligned with the spectrum underneath.

Presets

The menu in the top-right is your preset list.

- **Init:** resets every control to WildGrain's default starting point.
- **Factory:** the shipped presets (below). A great place to start and learn the plugin.
- **User:** anything you save yourself.
- **Save As...:** names a new preset and saves it to your User folder.
- **Refresh List:** rescans the folder on disk for presets added since you opened the plugin.

Presets live in your Documents folder under *Wildflower / WildGrain / Presets*, in *Factory* and *User* subfolders: easy to back up or share.

Tooltips

Hover any control for a moment and a one-line description appears. The **Tooltips** checkbox under the preset menu turns them on or off, and your choice is remembered across sessions and across every Wildflower plugin.

The manual

A small **Manual** button next to the Tooltips checkbox opens this guide. That is the copy the installer put on your computer; if it is missing, the plugin says so and offers our website instead. The flower mark and the *WILDFLOWER SOUND* line open our website; the **WildGrain** wordmark opens this plugin's own page on the site.

Factory presets

Starting points for sound-design work. All six install with WildGrain and appear under Factory.

PRESET	WHAT IT'S FOR
Elongator	Long, sparse grains with heavy Feedback at half Mix: stretches a sound out while the original stays present.
Embedded Technology	The longest grains at full Bloom, wide pitch Variance, bright Tone: machine chatter with the source buried in it.
Faked Clipping	Short, dense, hard-edged grains taken from just behind the playhead: digital break-up that reads as clipping.
Happy Cloud	Grains pitched up, long Reach, plenty of Diffusion and Smear: a bright, drifting cloud.
Scattered Fragments	Every grain reversed and thrown full width, with heavy Feedback: shards of the source spread across the stereo field.
Subsurface Fluctuations	Grains dropped two octaves with a dark Tone and wide pitch scatter: heavy, submerged rumble.

Working with the controls

Beyond dragging, every knob in WildGrain does two more things: you can **type a value** into it, and you can **right-click it** to reach your DAW's own menu for that parameter. Both work the same way in every Wildflower Sound plugin.

Type a value

double-click the number · Enter commits · Esc cancels

Double-click the number under a knob and it turns into a small text field with the current value already selected. Type what you want, then press **Enter** to commit it or **Esc** to cancel and leave the knob exactly where it was. Clicking somewhere else commits it too. The pointer becomes a text cursor over any readout you can type into.

The number you type is read in the unit shown on screen, unless that is impossible. If the readout says *2.5 kHz* and you type *900*, 900 kHz is far past the top of the knob, so the number is read in the other unit of the same kind and you get 900 Hz. If it says *ms*, typing *250* gives you 250 ms. You can include the unit or leave it out, and a readout that shows a note division instead of a number takes that same wording (*1/16T*).

A value that still falls outside the knob's range is clamped, not rejected. Ask for more than the knob can give and it moves to the nearest end of its range: the readout then snaps to that limit and flashes once, so you can see the value that was actually used. Nothing is quietly thrown away.

Double-clicking the *dial* still does what it always did and returns the knob to its default. Text entry lives on the number, not on the dial.

Right-click for your host's parameter menu

automation · MIDI learn · per-parameter modulation, where the host offers it

Right-click a knob and your DAW opens its own menu for that parameter: writing or arming automation, MIDI learn, and in Reaper the per-parameter modulation window.

That menu comes from the host, not from us, so what is in it, and whether it appears at all, depends on the DAW you are working in. Some hosts provide no such menu. In those, right-clicking simply does nothing and the knob stays where it is. That is expected rather than a fault: it is the same menu the host would offer on its own plain plugin panel.

Specifications

Formats	macOS: VST3, AU and AAX (Pro Tools). Windows: VST3 and AAX (Pro Tools). AU is a macOS format.
Channels	Mono, stereo, and mono in to stereo out (the cloud spreads across the stereo field). No surround.
Sample rates	44.1 kHz to 192 kHz.
Latency	Zero: grains read behind the live write head; nothing needs delay compensation.
Output ceiling	A safety limit holds the output at -0.19 dBFS so a big Feedback setting cannot blast. It adds no latency and does nothing at all until the signal reaches that level.
CPU	Light: grain count drives the cost; built to run several instances in a session.
Automation	Every control is host-automatable with stable parameter IDs (including Freeze).

A few favorite moves

- **Shimmer cloud:** Bloom up, Pitch +12, a little Smear: an airy, glassy version of your source.
- **Dread down-ladder:** Pitch -12, Feedback ~40: a descending avalanche of rumble.
- **Ghost reverse:** Reverse ~60, modest Density, some Reach: an eerie, pre-echo cloud.
- **Frozen pad:** Freeze a sustained moment, long Length, high Smoothing: an instant evolving bed.
- **Stutter chop:** Smoothing low, Density low, Diffusion high: rhythmic, gated grains.
- **Crowd from one:** high Diffusion and Scatter Width, some Variance: one voice into many.

Remember: Bloom, Pitch and Length shape most of a cloud. Reach for those first, then refine in the Fun Zone.



THANKS

Thanks for using WildGrain

If you hit a bug, have a question, or make something you're proud of with WildGrain, we'd genuinely like to hear from you: your feedback is how the tools get better.

Web wildflowersound.io

Email support@wildflowersound.io

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